Tacit Learning – Finding Proven Practices and Lessons Learned for Acquisition Managers

John Higbee

8 April 2014

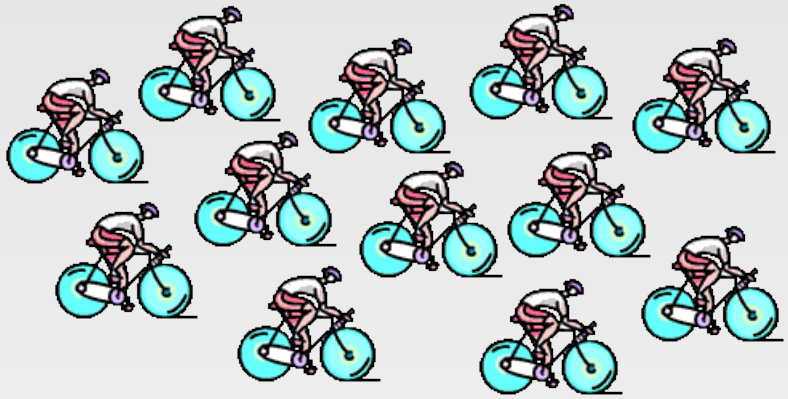
Briefing for DAU AA Training Symposium

Introduction

Source: www.differencebetween.com

What is Tacit Knowledge?

Knowledge passed through contact and interaction



Introduction

The ability to ride a bicycle is an example of tacit knowledge.

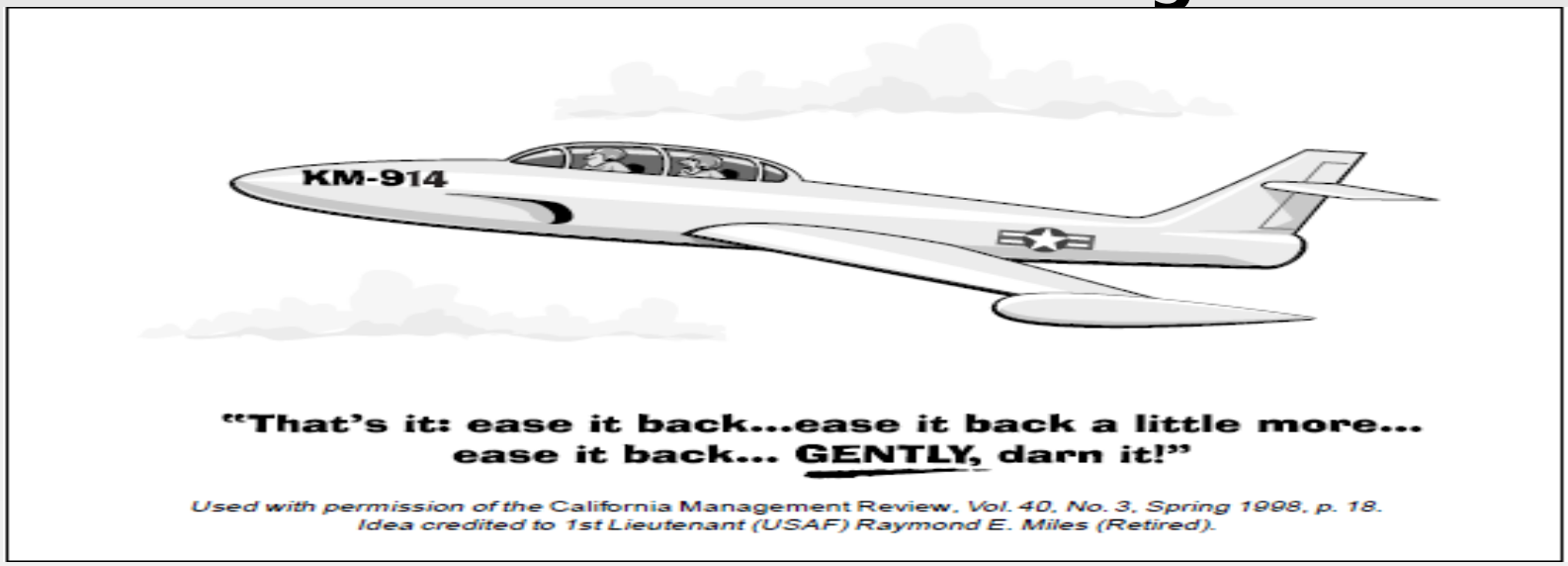
If you know how to ride a bike, you cannot transfer that ability to another person just by "classroom instruction".

You gain that ability via "learning by doing".

Source: www.differencebetween.com

Introduction

- **How do you transfer tacit knowledge to others?**
  - **Effective transfer of tacit knowledge generally requires extensive personal contact, regular interaction, and trust.**
  - **To some extent this knowledge is**


KM-914
"That's it: ease it back...ease it back a little more... ease it back... GENTLY, darn it!"
Used with permission of the California Management Review, Vol. 40, No. 3, Spring 1998, p. 18.
Idea credited to 1st Lieutenant (USAF) Raymond E. Miles (Retired).

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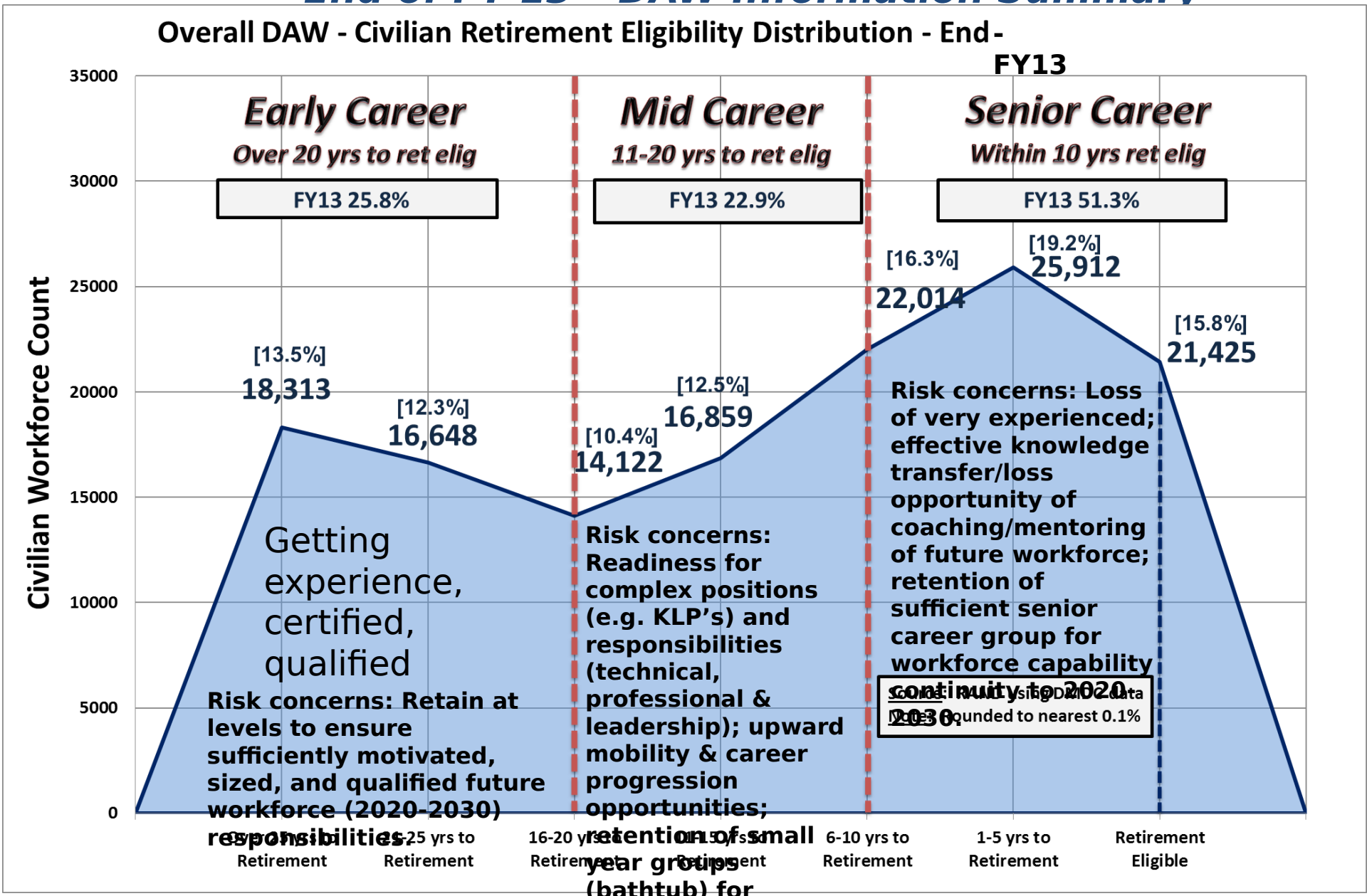
Source - Wikipedia

Introduction

- **Why is tacit learning important to us now?**
  - **Traditionalists and Boomers are exiting the Acquisition Workforce**
  - **Generation X and Generation Y will be expected to demonstrate undiminished capability**
  - **Generation Z will be entering workforce in**

End of FY 13 – DAW Information Summary



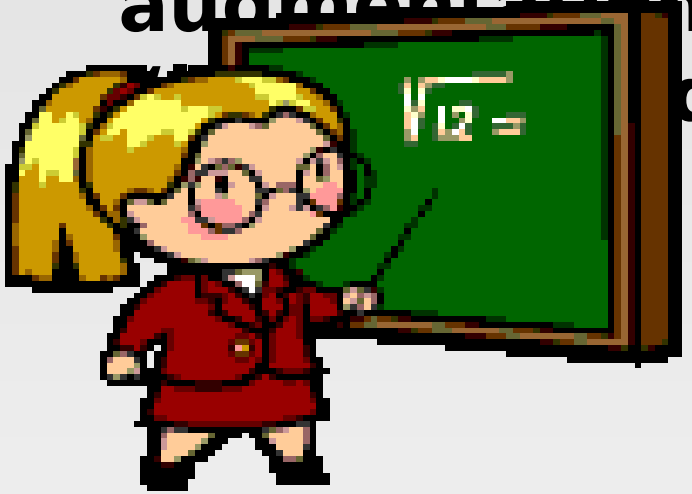
Career Lifecycle by years to Retirement

Source: OUSD (AT&L) HCI

Data Source: RAND NDRI Forces and Resources Policy Center (data as of 09-30-201

Introduction

Tacit learning, supported by "knowledge-sharing" sites (e.g. Proven Practices/Lessons Learned) is a valuable augmentation to "learning by doing"



Learn from other acquirers' experiences

Many of these sites already exist

Scenario One – Services Acquisition

You are the COR on a knowledge based services acquisition and your supervisor has stated you need to prepare the requirements documents (PWS, QASP, CDRLs) for the follow-on acquisition. You have never written requirements for a services acquisition before.

Where can you go to find proven practices for writing requirements and samples of tasks and performance standards?

Service Acquisition Mall

d Automated Requirements Roadmap To

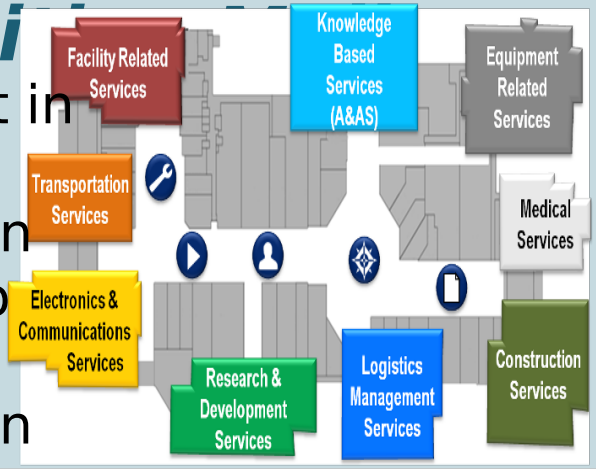
Where could you go?

BBP Focus Areas

1. Achieve affordable programs
2. **Control costs throughout lifecycle**
3. Incentivize productivity
4. Eliminate bureaucracy
5. Promote competition
6. **Improve tradecraft in services**
7. Imp

Service Acquisi

- Improve tradecraft in services acquisition
- 7-steps to service acquisition proces



Acquisition Requirements Roadmap Tool

ACQUISITION
REQUIREMENTS
ROADMAP
TOOL

- Structured methodology tool

Scenario Two – Logistics (PBL)

You are the Program Manager on an ACAT III program. You are preparing evaluation criteria for a new source selection and have some questions about how others are implementing Performance Based Logistics. You are specifically looking for success stories and results

Where can you go to find PBL success stories to improve your program?

Performance Based Logistics Results and Successes

Where could you go?

BBP Focus Areas

1. Achieve affordable programs
2. Control costs throughout lifecycle
3. **Incentivize productivity**
4. Eliminate bureaucracy
5. Promote competition
6. Improve tradecraft in services
7. Improve professionalism

DEPARTMENT OF DEFENSE
SOURCE SELECTION PROCEDURES

DoD Source Selection Procedures

Increase Effective Use

Performance-Based Logistics (PBL)

PERFORMANCE BASED LOGISTICS
PBL
DELIVERING AFFORDABLE READINESS

Improving DoD Materiel Availability and Reliability While Reducing O&S Costs and Mean Down Time

Scenario Three – Cash Flow/PBP Strate

You are the Cost/Price Analyst on a sole source acquisition and the Contractor has proposed to use performance based payments as its method to finance its contract.

Where can you go to find lessons learned on profit, and what motivates a Contractor to perform when using PBPs?

Performance Based Payments Guide and Cash Flow Analysis

Webinar on "Profit, Cash Flow, and Internal Rates

Where could you go?

BBP Focus Areas

1. Achieve Affordable Programs
2. Control costs
3. **Incentivize productivity**
4. Eliminate bureaucracy
5. Promote competition
6. Improve tradecraft in services
7. Improve professionalism

Con

Performance Based Payments - Guide

Analysis Tool

Proven practices, tool, and examples using the time-value of money to negotiate win-win arrangements associated with improved cash flow

Align profit with goals

Joint AF and Defense Pricing Webinar on "Profit, Cash Flow, and Interna Rates of Return"

Scenario Four – Open Systems Architecture

You are a Engineer designing the next generation submarine combat system. You know your supervisors have been emphasizing the need to increase competition.

Where can you go to find proven practices and case studies on implementing open systems architecture and leveraging intellectual property to increase competition?

Open Systems Architecture CoP, Guidebook, and OAAT tool

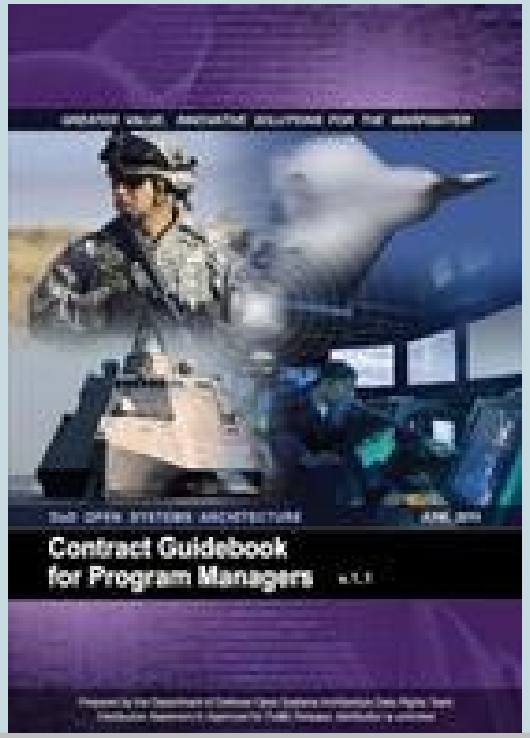
Where could you go?

BBP Focus Areas

1. Achieve affordable programs
2. Control costs throughout lifecycle
3. Incentivize productivity
4. Eliminate bureaucracy
5. **Promote competition**
6. Improve tradecraft in services
7. Improve professionalism

Open Systems

OSA



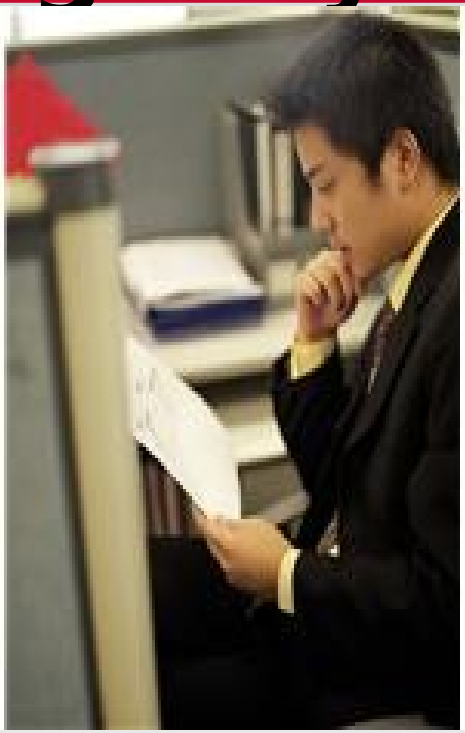
Open Architecture Assessment Tool (OAAT)

Scenario Five – Contingency Contracting

SCENARIO:

You are a Contingency Contracting Officer (CCO) preparing for your first deployment.

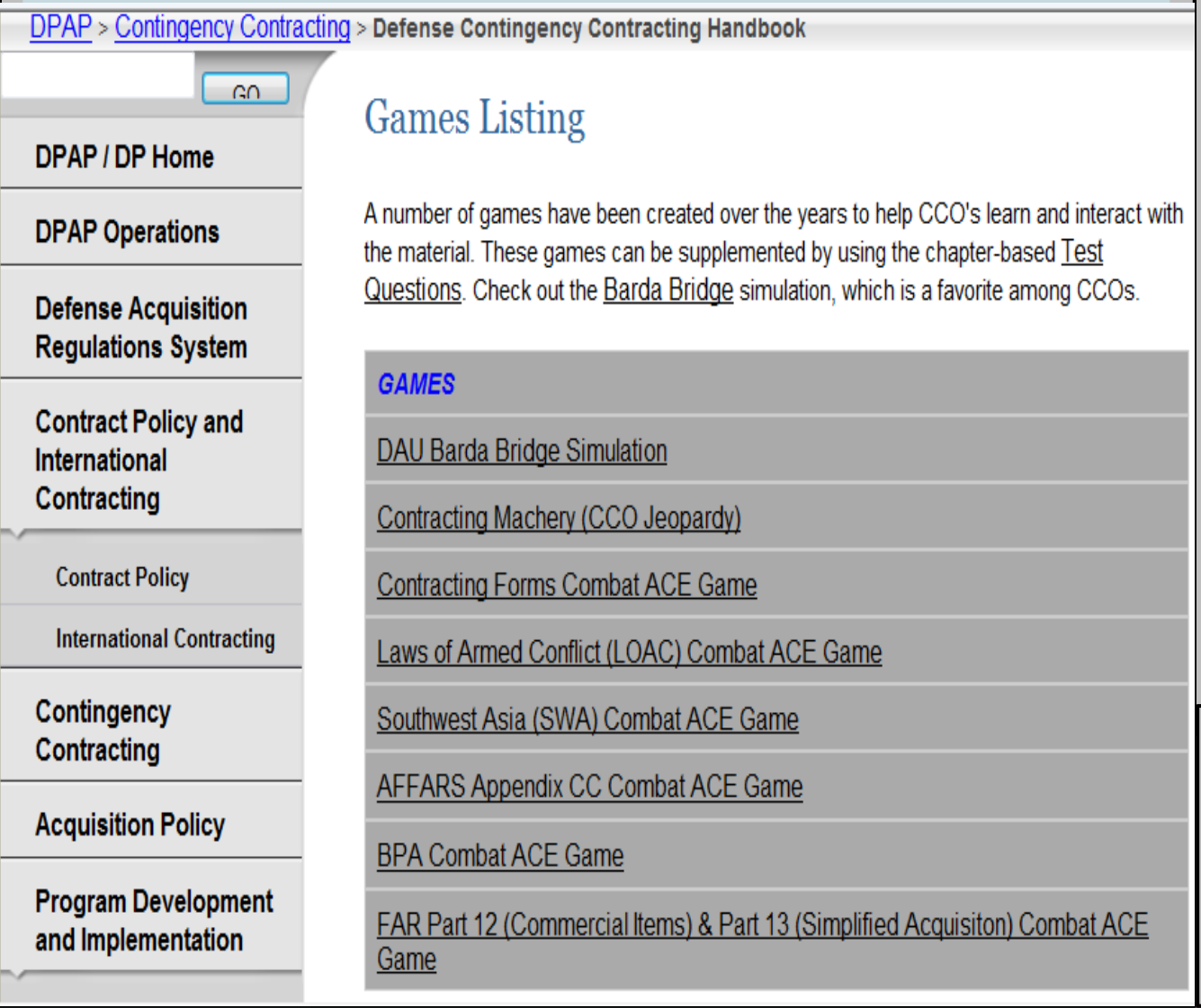
Where can you go to find proven practices on preparing yourself for the mission ahead?



Defense Procurement and Acquisition Policy *Contingency Contracting Games site*

Where could you go?

Defense Procurement &


DPAP > Contingency Contracting > Defense Contingency Contracting Handbook
GO
DPAP / DP Home
DPAP Operations
Defense Acquisition Regulations System
Contract Policy and International Contracting
Contract Policy
International Contracting
Contingency Contracting
Acquisition Policy
Program Development and Implementation
Games Listing
A number of games have been created over the years to help CCO's learn and interact with the material. These games can be supplemented by using the chapter-based Test Questions. Check out the Barda Bridge simulation, which is a favorite among CCOs.
GAMES
DAU Barda Bridge Simulation
Contracting Machery (CCO Jeopardy)
Contracting Forms Combat ACE Game
Laws of Armed Conflict (LOAC) Combat ACE Game
Southwest Asia (SWA) Combat ACE Game
AFFARS Appendix CC Combat ACE Game
BPA Combat ACE Game
FAR Part 12 (Commercial Items) & Part 13 (Simplified Acquisiton) Combat ACE Game

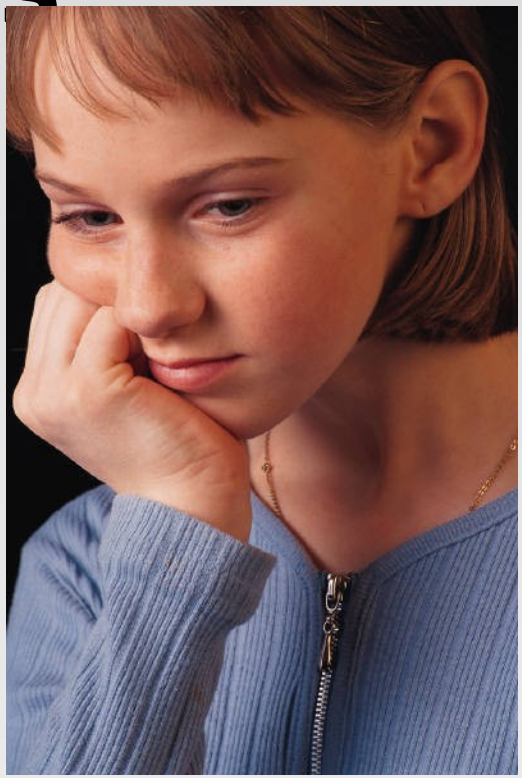
Contingency Contracting Games

A number of games have been created over the years to help Contingency Contracting Officer's (CCO) learn and interact with the material.

The Barda Bridge simulation is a best practices favorite among CCOs

Scenario Six – Program Scope Changes

You are the Contracting Officer and you are considering issuing a change order on one of your major contracts.



You have informally spoken with your contractor who has informed you he considered the work to be changed is out of scope.

Where can you go to find lessons learned to feel more comfortable with your decision before you make it?

Government Accountability Office (GAO)

Where could you go?

Government Accountability Office (GAO) Legal Decisions & Bid Protests

Decisions

Page

Bid Protests | Red Book | Appropriations Law | **Contract Appeals Board** | Federal Vacancies Act | Congressional Review Act

Contract Appeals Board - Decisions

Learn more about the Contract Appeals Board.

Grunley Construction Company, Inc. (Appellant) v. Architect of the Capitol (Respondent), CAB No. 2010-6

Nov 26, 2012

Grunley Construction Company, Inc., appeals the final decision of the contracting officer of the Architect of the Capitol (AOC) under contract No. AOC-0400062, denying Grunley's request for an equitable adjustment of $3,640,520 for work performed to replace certain windows at the United States Supreme Court (USSC). Grunley asserts that it and its window subcontractor, Masonry Arts, Inc. Read more

View Decision (PDF)

Grunley Constuction Company, Inc. (Appelant) v. Architect of the Capitol (Respondent), CAB No. 2007-3

Nov 26, 2012

Data Integrators, Inc. (Appellant) v. U.S. Government Printing Office (Respondent), CAB No. 2010-2

May 8, 2012

Inventory Discount Printers, CAB No. 2011-1

May 31, 2011

Scenario Seven: Technical Challenges

You work for NASA in the Earth Sciences Directorate and have recently started working in the Unmanned Aerial Vehicle program office. Your co-workers tell you about interoperability challenges affecting several of the UAVs due to proprietary rights on the ground control systems. You have been asked to research possible technical solutions.

Where can you go to find proven practices or lessons learned to help address this issue?

Defense Technical Information Center (DTIC) Technical Reports

Where could you go?

Uncover the latest research updates or store and share your research data in DoD's S&T wiki.

Defense Technical Information Center (DTIC)

IACs are research & analysis organizations established by the DoD to support researchers, scientists, engineers, and program managers with expertise in all areas of Defense research and engineering.

- Defense Innovation Marketplace
- R&E Gateway DoDTechSpace
- DoDTechipedia
- Access Controlled Search
- DoD Budget Tools
- Information Analysis Centers (IACs)

DTIC News Wire

Why
R&E Gateway Search?
DTIC's definitive one stop search tool connects you with:
• 30,000 ongoing, completed or planned research projects
• Over 3.5 million technical reports
• Thousands of people and conversations in the S&T community
LEARN MORE

Search DTIC's Collections at the R&E Gateway

Search now to get comprehensive results from the DTIC Collections. Expand your search results through access to limited projects and reports. Not registered? Register today for access to DTIC's controlled online experience to make your search relevant, targeted and informative...read more

1 2 3 4 5 6 7 8 9 10

Welcome to DTIC:

Provider of DoD Technical Information to Support the Warfighter

The Defense Technical Information Center (DTIC®) serves the DoD community as the largest central resource for DoD and government-funded scientific, technical, engineering, and business related information available today .

DTIC Strategic Plan 2011-2016

Quick Links

- Announcements
- DTIC Online Navigation Guide
- DTIC *ToGo*
- DTIC Transformation
- Enterprise Email Change
- Open Government
- R&E Gateway (Description)
- S&T Priorities for FY15 Budget - New
- Technical Reports
- Training

Scenario Eight – Milestone Reviews

You are a Program Manager preparing for your next milestone review. You are looking for trends on lessons learned which are occurring at each Milestone Decision.

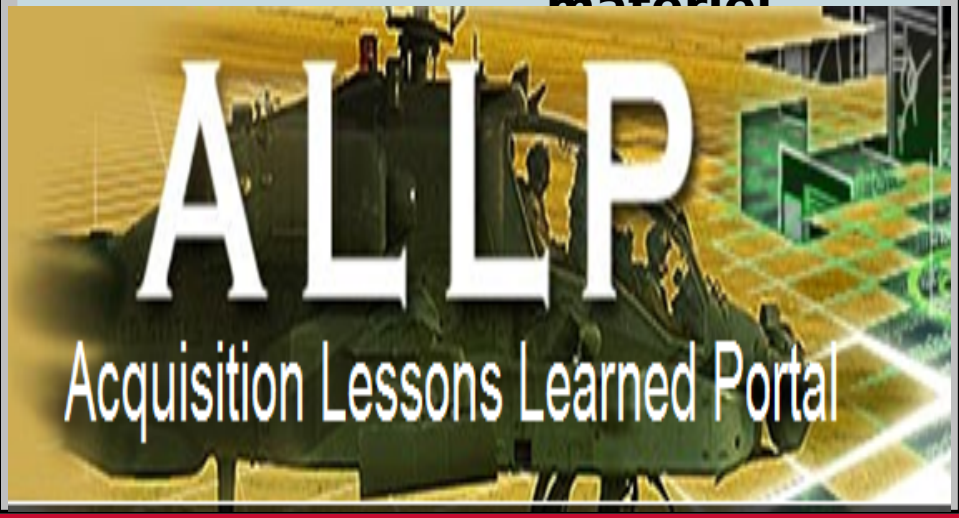
Where can you go to find lesson learned trends on milestones?

Army Acquisition Lessons Learned (AALL) Portal and AALL Bulletin

Where could you go?

Army Acquisition Lessons Learned Po

AALL is the trusted source for relevant and timely real world acquisition and materiel



Acquisition Lessons Lear Bulletin

AMSAA Acquisition Lessons Learned Bulletin

US Army Materiel Systems Analysis Activity (AMSAA), APG, MD

October, 2013
Volume I, Issue 2

Special points of interest:
- AMPV Case Study
- Trend Analysis
- MBS Focus Area
- RFAST-C Lessons
- Hot Lessons!

We're Back! The Second Edition of the Acquisition Lessons Learned Bulletin!

AMPV Acquisition Strategy Case Study: A Lessons Learned Perspective

Inside this issue:
We're Back! 1
AMPV Acquisition Strategy Case Study 1
ALL Trend Analysis 2
Hot Lessons! 2
MBS Focus Area 3
Documentation Review Study 3
RFAST-C Lessons Learned 4
In the News! 4

The Army Acquisition Lessons Learned Portal (ALLP) is the Army's Trusted Source for Relevant and Timely Acquisition Lessons Learned to Enhance the Performance of the Army's PMOs in Support of the Warfighter!

Strategic Trends (All Sources)

These are the issues being reported that deal with program oversight
and regulations/statutes that cause **roadblocks** for Army programs.

- **Lack of coordination between oversight offices and sequencing of program events**
  causes program delays (10 lessons from 5 PEOs, 2 reports)

  Examples:

  - Army information activities are fragmented across HQDA with each office having unique requirements (G-3 Information Requirements, G-6 Acquisition Compliance and Certification,

    G-6 Frequency Spectrum Division-NETCOM, G-6 Architecture Operations Network and Space)
  - ASARC decisions affecting other programs need to be captured and shared
  - Program schedules could be condensed by 12-18 months if RFP could be released prior to MS

- **Program Oversight authorities should support streamlining of documentation requirements where appropriate** (12 lessons from 6 PEOs, 1 report)
  - Although this is permitted by DoD 5000.02, some programs still report issues (why?)

- **Lack of appropriately trained personnel and good leadership can hinder program**
  success (10 lessons from 3 PEOs, 2 reports)
  - PMs should not be constrained by outside commitments
  - Incentives should be used to keep well performing PMs/ teams in place

Practical/ Operational Trends (All Programs)

These are the issues being reported that can be improved at the working level within the acquisition community.

- **Early and efficient milestone and documentation preparation is key** (32 lessons from 8 PEOs)
  - Coordinate with stakeholders early, utilize documentation IPTs and tracking tools, and know what is required for the MS review.
- **Integration risks are underestimated throughout program lifecycle** (16 lessons from 4 PEOs)
  - Plan for adequate integration testing in program schedule and engage program stakeholders early and often to reduce programmatic risk.

NOTE: AMSAA & TARDEC currently pursuing Army approval of IRL definitions

Emerging Trends from PEO Community

- Maintain frequent communication to allow **better coordination across stakeholders** (9 lessons from 7 PEOs)
  - Engage with all stakeholders, form IPTs, and conduct IPRs/ meetings on a regular basis.
- **Consider test efficiencies during test plan development** (6 lessons from 4 PEOs)
  - Potential test efficiencies include increasing test articles, combining tests, use of data from similar programs, and use of M&S.

Recent Case Studies

COMPLETE:

- **Long Endurance Multi-Intelligence Vehicle (LEMV) Lessons Learned Case Study**
  - Feb. 2013 - tasked by DASM to collect ALL
  - 12 lessons identified and logged
  - Report provided to DASM & available on ALLP

- **Armored Multi-Purpose Vehicle (AMPV) Acquisition Strategy Lessons Learned Case Study**
  - Mar. 2013 - HQDA G-8 requested ALL review of acquisition strategy and hindrances to acceleration
  - 3 lessons identified
  - Report provided to HQDA & available on the ALLP

ONGOING:

- **Acquisition Documentation Study**
  - **Purpose**: Based on preliminary trends identified in lesson learned submissions presented in April 2013, it was decided that AMSAA should conduct an in-depth analysis of Acquisition documentation requirements and staffing processes.
  - **Status:** Survey/Data Call sent to each PEO PoC for distro to all PMOs. 36 Responses received, initial analysis underway. May be merging with ASA(ALT) directed LSS effort.

‘Just in Time’ Lesson Packages

Just-in-Time Lesson Learned packets are a listing of lessons learned taken from the ALL Portal that apply to the system’s upcoming phase within the Acquisition Lifecycle.

- **Purpose:** Provide PHASE specific Lessons Learned packages to customers that apply to their system’s near term lifecycle, sorted by CATEGORY.

- Allows user to quickly scan list of lessons that might be applicable to their needs, and if further information is required, login to the ALLP and search the LL ID # for additional detail.

PHASE – ENGINEERING, MANUFACTURING & DEVELOPMENT (EMD)
CATEGORY – TEST AND EVALUATION
DATE PULLED 2/11/2014

Lesson #: 80 Category: T&E System: GCV	
Lesson Learned	Consider test efficiencies during test plan development, such as leveraging other Army agencies' data, building M&S into the test plan strategy, and challenging program requirements.
Recommendation	Program TEMP should address efficiencies identified during test plan development. OMS/MP should not always drive the test strategy. (It was primarily automotive changes being made to PIM. The test strategy should fit modification and/or intended use of the platform.) Test as last resort approach - Test Should Not be the Default Action. Utilize 'Test Off Ramps' tied to decision points to allow for reductions in test during the duration of the program test timeline and embed in TEMP. Institute Policy, Procedures, Regulations, Guidance and SOP updates that provide a mechanism by which the entire enterprise collectively works up-front, and throughout program timeline to gain efficiencies. Integrate the Test community into both the DAB and requirements development process. Leverage other Army agency’s data (Labs, DCMA, etc.) to address test requirements. Determine level of acceptable risk to program and correlate minimum amount of testing up-front in test plan development. Build M&S into test plan strategy early. Challenge program
Lesson #: 119 Category: T&E System: AMPV	
Lesson Learned	Adequate on-site government/ materiel developer oversight at test locations is a necessity.
Recommendation	Adequate on-site government oversight at test locations is needed. The cost of the on-site representative is outweighed by the potential cost increase of extended testing.

Acquisition Proven Practices and Lessons

ACQ P²L² Acquisition Proven Practices and Lessons Learned

A consolidation of Acquisition and Acquisition-related proven practices and lessons learned

Should-Cost Best Practices Repository

Performance Base Logistics Results & Successes

Army Acquisition Lessons Learned Portal

Services Acquisition Mall & Automated

Final Thoughts

- **Defense Acquisition Workforce changes affect all of us**
  - **“Boomers” departure accelerating – affects DAW’s corporate knowledge**
  - **Technology is exploding in capability/span of coverage**
- **Defense Acquisition is working to better capture proven practices and lessons learned**
  - **Complementing the “what” (information sites) with the “how it can work” (P^2L^2 sites)**
- **You can provide valuable inputs to**

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8 April 2014